

# Dvorak Developments

Dvorak Developments #54 (Volume 15, #4) • "Winter 1988" (Published January 1990)

## Our Last Issue

*Switchable Keyboard, Other Dvorak Products on the Way*

## Washington Company Teaches Dvorak Keyboarding

by Randy Cassingham

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**F**rom her offices on the shore of Lake Union in Seattle, Linda Bundy is doing as much as anyone I know to pull the Dvorak keyboard from its grassroots stage into the forefront of mainstream acceptance. I visited her and many of her dozen or so colleagues in their spacious, professional offices this fall to discuss Keytime's involvement with the Dvorak keyboard and their impressive future plans.

Ms Bundy was working on her Master's degree in computer education at the University of Washington in 1983 when she realized that people weren't getting as much out of computers that they might because they couldn't type. "There were so many adults who couldn't get through their lessons because they were looking for letters (on the keyboard) all the time," she said. When she couldn't find a fast enough way to

teach typing, she developed her own method over the course of two years while teaching 1500 people how to type.

She refined her system so that she could teach all of the letters on the keyboard in just an hour. "Instead of learning key locations by rote memory," Ms Bundy says, "students learn them in an easy, logical way that is linked to established memory patterns." She says children as young as kindergarten age have learned to type using her method, though children that young usually take longer than an hour.

After the first one-hour class, most everyone can type "the quick brown fox jumps over the lazy dog" (a sentence that uses all 26 letters) without looking at the keys. The full Keytime course takes three to five hours spread over two weeks. Between classes, students practice on their own. By the end of the course, most students type an average of 20 WPM. Students that al-

ready have some keyboard skills when they start usually type 20 WPM faster than when they started the class.

To date, more than 3000 people have been taught how to type using Ms Bundy's system. Originally, only Qwerty classes were offered, but she always mentioned that there was another keyboard, the Dvorak, when she discussed the origins of the typewriter. "When I was working on my Master's, I was told that I needed to know about the Dvorak. I searched through the library, but couldn't find any good information," Ms Bundy



*Keytime's Linda Bundy shows Randy Cassingham the prototype of her switchable Dvorak/Qwerty keyboard at Keytime's Seattle office.*

Photo by Curt Cassingham

*Continued on Page 10*

## Letters

### Switched on Dvorak

I read about the Dvorak layout years ago, when I was a kid, in an article in *Popular Science* magazine. It was disheartening (at the very least) to be forced to learn the "bad old system" in college, but it was the pragmatic choice at the time. After two decades of trying to use that clumsy thing, I jumped at the chance to go Dvorak when we got our Macintosh computer in early '84.

Sadly enough, for the computer that promised to be "for the rest of us", Apple decided to overlook Dvorak. With the release of the latest version 1.2 of ResEdit, at least it's now rather easier to lay out the system keyboard definition to be anything at all. You can use Dvorak as your main layout and keep Qwerty as an auxiliary so that you can easily switch back and forth for non-Dvorak typists.

While I'm known much better for other kinds of keyboard skills, I just wanted to spread some more encouragement to those who are considering using the Dvorak layout. I did it three years ago. It meant about four days of relearning, which was slow, but in no way difficult, and then two more weeks to get back to the old Qwerty speed. From there on, you never look back. Speed goes up and up. The errors go way down. But most important, the fatigue factor is gone. My hands almost don't seem to move, with wrists almost able to rest on the desktop. Don't just think about switching over to Dvorak. *Do it.* You'll never be sorry you made the small effort. And the pleasures will be yours for the rest of your life.

Wendy Carlos  
New York

*Wendy Carlos is a pioneer in keyboard music synthesis. Her best-known album is "Switched on Bach". She was recently featured on "Nova", PBS's science program, discussing the nature of music.*

### Freedom of Information

Bless John Dvorak for his mention of you in his *PC Magazine* column. Now is the time! I want to learn Dvorak! I believe PCs *at last* give me the "freedom of choice" to use whichever keyboard I prefer.

W-a-a-a-y back in 1949, I was a secretarial student learning my bread-and-butter living prior to entering traditional college. My first typing teacher told me about this terrific keyboard layout she wished she could use to teach typing. I was really sold, but I needed Qwerty to find a job! Now, I work as a part-

time word processor while I pursue a bachelor's degree. To create really adequate compensation for my time and investment in equipment, I need to increase my hourly output. I have spent a few hours playing with (the Dvorak layout on my computer) and discovered that Dvorak seems to be the keyboard for me and probably always has been.

Is it possible to maintain an adequate capability with Qwerty as a sort of second language after one has learned the Dvorak keyboard? I can visualize being forced by circumstances at school or work to use Qwerty to some degree — like it or not.

Keven Vernam  
Warrenton, VA

*While I chose not to keep my Qwerty skill up, I can still do a credible job of two-finger typing when I encounter a Qwerty layout. Most people who do practice occasionally on Qwerty can keep their skill up on that keyboard, even when most of their typing is done on Dvorak.*

### We Still Need Support

I'm disturbed that you want to cease publication of *Dvorak Developments* because you feel the Dvorak keyboard has been "accepted by a large number of people." I don't see these people. I work for one of the largest private companies in California (Hughes Aircraft) and since I converted to Dvorak three years ago, I have not met anyone else at Hughes who types Dvorak.

I agree that computers must be responsible for an increasing acceptance of Dvorak, but most people I show the keyboard to think it's some kind of novelty and have no desire to learn it. I'm not sure why not.

I felt *Dvorak Developments* was good support because I liked reading who else was using Dvorak.

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..... Bob Nelson

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Without it, I would have felt like an island struggling for survival in a sea of Qwerty.

Kim Stocksdales  
Marina del Rey, CA

*If there were other Dvorak typists at Hughes, would they be able to tell you used it when you walked down the hall? I suspect there are more Dvorak typists in your midst than you know. When I talk to people about the Dvorak (as you would expect, it comes up a lot when I talk to people), I find that almost everyone knows that "Qwerty is bad and it was made that way because of the mechanics of early typewriters" and that "there is another keyboard that is better". At least half even know that the other keyboard is called Dvorak. A majority would like the opportunity to try it, but don't know how or where to start. Freelance Communications will continue to support these people with information and software conversion utilities.*

*The newsletter isn't being discontinued because there are a ton of people using the Dvorak. If that were accepted logic, there wouldn't be any computer magazines. Rather, it is my feeling that the momentum is strong enough that the Dvorak will be "accepted by a large number of people" whether or not there is a newsletter, and that releases me to concentrate on a number of projects that have taken a back seat while I've been pounding the Dvorak bible for these past several years.*

## From the Editor's Keyboard

by Randy Cassingham

### The Last Issue

Yes, this will be our last issue. I thank the many people who wrote to say they would miss my occasional (if irregular) communiqués, but I haven't changed my mind. I wrote in the last issue that I had asked myself the question, "has the Dvorak movement gained enough momentum that the newsletter should cease?" and the answer was "yes". Unfortunately, some did not understand what I meant.

The usual translation of my remarks is that a Dvorak newsletter wasn't 'needed' anymore. That isn't exactly what I meant. The specific question I had in mind was "does the Dvorak have enough momentum that it will succeed without a newsletter?" and that is what I answered yes to. A newsletter would help the movement go from the grassroots stage to the mainstream stage in a more smooth and orderly manner, but it will go mainstream without one. I have constantly been amazed at the number of people who use

the Dvorak — they turn up in every walk of life (see, for instance, this issue's Letters page). These people — you — truly believe in the Dvorak; with or without a newsletter, you won't let it die!

As many have surmised by the irregularity of my publishing schedule, my schedule is overcommitted, and I must let *DvDv* go to make room for things that have been on hold for several years. It was a difficult

## The Dvorak Keyboard...

"... is one of the most fascinating books I've had the pleasure to read lately. Cassingham really did his research on this book."

— Mark Nolan, Information Marketing Newsletter

"If you are after good, useful, hard-to-find (Dvorak) keyboard information, this book will be invaluable to you."

— David McLanahan, ComputerSmyth



*The Dvorak Keyboard* is still the only book of its kind. Written by *Dvorak Developments* editor Randy Cassingham, it will answer your questions about the Dvorak layout — everything you want to know about the Dvorak is here in one place.

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decision. This year's circulation was the highest ever, but that just made it worse for me; the more the circulation, the more time the newsletter took from my already crammed schedule. When Dvorak International shut down their operations, we got still busier. Something had to give; the newsletter, I judged, was the something.

But this doesn't mean that everyone in the world has all the Dvorak information they need. Freelance Communications will remain in business for some time. I will be here to supply copies of *The Dvorak Keyboard*, back issues of *DvDv*, *PCKey*, and background reports and other materials about the Dvorak. We will remain one of the primary sources of Dvorak keyboard information as long as there is a call. Count on it.

#### More on the Horizon

We've had a lot of contact with **Dr Robert Holston** lately. Bob is a Dvorak convert who has some good ideas about how to promote the keyboard, and he has been working hard to put his ideas in motion. He is trying to start a new, *not for profit* Dvorak informational organization. I hope he can get a good group going to meet his goal of bringing the Dvorak to the educational system. I agree with his premise: we should stop trying to convince competent typists to switch to Dvorak — whether they use Qwerty or some other layout they are comfortable with — and concentrate our efforts on *new* typists, namely kids. It is a cruel joke to force children to learn a system that was designed to be inefficient (and, therefore, is difficult to learn) when there is an easy-to-learn and -use alternative available.

Such a plan won't work, of course, if modern machines only have one keyboard choice; *both* Dvorak and Qwerty layouts must be available on *every* keyboarded machine. The cost impact would be insignificant, the benefits would be enormous. Keytime's add-on boards (see page 1) are a giant step in the right direction.

Bob, I'm sure, would like to hear from you with offers of any kind of support you are willing to give — especially financial. Contact him at the **Dvorak Keyboard Association**, 10 Garfield Place, Massapequa NY 11758.

#### The Big, Unanswered Question

The second-most-asked question people ask me about the Dvorak is "How many people actually use it?" (Number one is "Is it easy to learn?", and the answer is "Yes!") Unfortunately, the most-asked question is much easier to answer than second-most-asked.

The nature of the Dvorak keyboard, from its

## Bibliographic Notes

In *The Dictionary of Confusable Words* by Laurence Urdang, a 1988 Facts on File publication, is an entry titled "Qwerty keyboard/Dvorak keyboard" which briefly discusses the difference between the two layouts and predicts that Dvorak will eventually replace Qwerty.

*MacUser*, June 1988. A brief article about Dvorak on the Macintosh.

*Word Processing: Quality Clinic*, November 25, 1988. Reviewed the benefits of the Dvorak for word processing and office professionals.

*Word Processing: Quality Clinic*, December 25, 1988. A short interview with **Randy Cassingham** was featured as a followup to the previous month's article.

The Dvorak keyboard was the feature of a special exhibit from May 15 to July 15, 1989 at the Smithsonian Institution's National Museum of American History. The display, which was located near the permanent typewriter exhibit on the museum's first floor, was put together by **Kay Youngflesh** from the museum's Division of Engineering and Industry.

### An Ideal Way to Convert Your PC to Dvorak

**PCKey** is a small, memory-resident program for your IBM PC/XT/AT or "true" compatible. It converts your computer to a Dvorak layout instantly, and it works with most any other program you might use.

With **PCKey**, you can set up your keyboard for **any** variant of the Dvorak (ANSI standard and Dvorak one-hand layouts included), or you can set up **any** custom layout you choose using an interactive setup screen. You can move the location of any key on the keyboard (except the space bar) — even the shift, Ctrl, Alt and back-space keys! In addition, **PCKey** gives you the following extra features:

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**PCKey** is just \$20 for standard 5.25" disks, \$25 for 3.5" disks for your laptop or PS/2 running MS-DOS.

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*Continued on Page 8*

## Product Overviews

Product overviews are detailed descriptions of Dvorak-related products. The regular "for sale" version of the product is tested, then described in full so that readers can make intelligent choices on what products fit their needs. Opinions expressed in the overview are those of the author.

### *A Beacon in the Darkness*

## Mavis Beacon Teaches Typing

by Bob Nelson

**Description:** Dvorak Tutorial Program for IBM PC, Macintosh, and various other computer systems (contact publisher for current systems supported)

**Supplier:** The Software Toolworks, 19808 Nordhoff Place, Chatsworth CA 91311.

**Machine used for test:** Everex Step 386/20 with hard disk and EGA graphics.

**M**avis Beacon Teaches Typing from The Software Toolworks has a slick, professional feel to it right from the start. The install program leads the user through a series of screens and options that make installing the program an easy, painless operation.

"Mavis" is a fictional teacher who guides the student through the lessons in a classroom setting — right down to a "chalkboard" on the screen. Typing MAVIS loads the typing tutor, which then displays an opening screen with three options: **Meet Mavis**, **Mavis Help** and **Start the Lessons**.

Selecting **Meet Mavis** provides an introduction to the program and shows the user what to expect when moving through the typing lessons. The **Mavis Help** option displays a brief explanation of what the various function keys do. **Start the Lessons** gets you to the meat of the program, the typing teacher.

Mavis offers three levels of difficulty: beginner, intermediate and advanced. The program then compiles "Your Personal Record", which contains your name, age range, skill level, speed goal, time limit for lesson and the date. Any of these categories can be changed before proceeding. This kind of flexibility, built into the program at every level, is one important feature that sets Mavis Beacon apart from most other typing tutorials.

When you begin lessons, and at strategic points while moving through each lesson, Mavis displays a chalkboard which shows information on the nature and goals of the lesson. The user can choose to access several useful and advanced features built into the

program. By selecting **No**, let's do something else rather than proceeding into the lesson, you get to the options menu. Here lies the path to the most important option for Dvorak typists. Marching through a series of menus and screens eventually leads to the promised land: the Dvorak keyboard option. To get there takes some doing, however. First, from the options menu mentioned above, you must select **F1: See All Choices**. From the next screen, select **Keyboard Design**, which pops up a menu with the top option, **Keyboard is Standard**, highlighted. Press the Enter key and you will have finally arrived at your goal — below the Standard option listed will be the magic word: **Dvorak**.

Highlighting Dvorak and pressing Enter will give you the option of learning the new keyboard arrangement from the beginning or simply proceeding with the lesson. The program also reminds you to save your settings if you want the new keyboard layout to be active the next time you fire up Mavis. Such helpful messages may seem superfluous to a veteran user of Mavis, but they can save a good number of extra steps, and no small amount of frustration, when you next use the program.

After choosing the Dvorak keyboard, you will find that the keyboard displays (and chalkboard messages) reflect the new layout. An important thing to note

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here is that Mavis assumes you are using a Qwerty keyboard. If you use a Dvorak conversion program, disable or unload it before running Mavis. If you are using a Dvorak-only keyboard, you cannot use the Mavis program's special Dvorak mode because Mavis will "convert" you to Dvorak again, making your typing spew out nonsense.

During lessons, Mavis presents a fairly familiar interface with the keyboard layout and a pair of "hands" superimposed over it occupying the lower half of the screen, and messages or typing cues displayed in the upper half of the screen. For some reason, though, I found that the program did not register some of my keystrokes when I typed fast (despite the fact that I was using a 20MHz 386 machine while doing this review!), so I had to hit the key a second time before the program moved on. This problem did not arise during the "workshop" or in the "classroom" practice sessions (see below).

When you finish practicing a particular set of keys, such as the home row keys or the numbers along the top of the keyboard, Mavis takes you to the "classroom" where you get to practice the letters arranged in words and "sentences". This is where most of the actual learning takes place since the typist is working with real words and not random letter combinations. The fortunate aspect of Mavis is that the program emphasizes this approach to learning typing, but a minor

drawback is that the words are not arranged in actual sentences at the beginning level, but real words arranged randomly. I would prefer word arrangements that reflect true sentences, but I do understand the limitations when there are a limited number of letters available for the program to generate words with.

Another Mavis plus is its ability to adjust to your expanding capabilities. If your typing speed exceeds the original goal you set, the program offers you the option of bumping the goal up a bit higher. The program also allows you to create your own lesson from scratch or type in your own practice text. And if you get bored with the standard practice modes, you can jump into a race car game that really gets the fingers hopping. The game can place a lot of pressure

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*The flexibility built into the program at every level is one important feature that sets Mavis Beacon apart.*

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on you to type both fast and accurately. It also offers different levels of difficulty and gets more challenging as your typing skills improve.

If you find yourself making a large number of mistakes and getting frustrated, the program seems to sense this and offers a change of pace. There is no time limit on this type of practice session, so you can relax and focus on accuracy instead of speed. And at any time, you can escape a lesson by hitting the Esc key. You can then access the program options and view a graph which displays your accuracy rate or typing speed for each key.

Mavis is copy protected, but if you have the original disk, it can be easily installed onto the hard disk or another floppy if you leave the original disk in the drive when running the program. I have little objection to this "key disk" form of copy protection because the program can be copied onto more than one machine and still run by the owner with the master disk. If this is an inconvenience to you, The Software Toolworks will sell you an un-copy protected program disk for an additional fee.

I enjoyed using Mavis Beacon Teaches Typing. Though one can get confused by the labyrinth of menus and submenus, this seems a small price to pay for the flexibility built into the program. This aspect, coupled with the program's sometimes uncanny sense of what the user needs next, makes for a very satisfying piece of software. If I were to ask for anything more, it would be better graphics — at least EGA quality — rather than the limited, uninspiring CGA graphics that Mavis uses even on high resolution color displays. But this is a minor nit to pick with an otherwise excellent program.

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## Learning Dvorak on the Mac!

### MacType

by Bob Nelson

**Description:** Dvorak tutorial program for the Macintosh

**Supplier:** Palantir Software, 12777 Janes Road Suite 100, Houston TX 77070, (800) 368-3797

**Machine used for test:** Macintosh SE 30 with internal hard disk.

**M**acType from Palantir Software emphasizes touch typing and the reinforcement of typing skills. This simple, yet elegant, program is set up to be useful to those whose skills range from the beginner to the practiced typist. This becomes apparent upon launching the program. The first-time user is greeted by a series of screens which contain information about various MacType options, such as selecting Warmup if you want to get comfortable at the keyboard before starting a lesson or, if you already know how to type, how to take a test before starting a lesson so you can establish an initial benchmark. The program will start you from scratch unless you take the typing skills test before starting a lesson. Taking the test (thereby demonstrating a degree of typing proficiency) allows you to skip the "learning the keys" phase and move right into practicing words and sentences.

MacType has a very nice help feature: to get more information on the menu selections, just hold down the Option key while selecting an item and the program will present an explanation of it. From time to time, MacType also displays helpful dialogue boxes to explain what you are about to do. The program is intelligent enough to stop bothering you with a particular dialogue box (or series of boxes) after you have seen it a few times. If you feel the need for a reminder, selecting Help from the Special menu will display the appropriate help screen.

MacType creates a separate student record for each new student and will save the information on an individual's progress and performance to disk upon quitting the program. The next time a user wants to practice typing, a double click on their personal student icon will load MacType and start up where they left off last time. The program also allows you to choose either Qwerty or Dvorak at the time you enter your name and instantly converts the keyboard to the Dvorak layout when you click on this option.

MacType contains a variety of practice sessions listed, appropriately enough, under the Practice menu. If you select Learn Keys from the menu, the program

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drills you on specific key combinations until you become adept at typing them. Accuracy and Speed drills display a series of lines containing a test sentence or list of words chosen to concentrate on your weak spots. Accuracy is always emphasized over speed, even in the speed drills.

Using MacType is simple and straightforward in the tradition of Macintosh software. The layout of the program follows the standard Mac interface and holds no unpleasant surprises. MacType's display is rather spartan by comparison with some other typing tutorial software, but I found this uncluttered approach less distracting and confusing than some of the fancier typing tutors I've used. For the most part, MacType was enjoyable to practice with and easy to use. Its emphasis on typing complete words and sentences rather than nonsense letter combinations demonstrates a trend in typing tutorial software toward practicing "real world" combinations of letters. Because of this emphasis, letter combinations that appear in writing, such as "sh" and "ch", are practiced rather than randomly generated nonsense combinations that don't normally occur in text.

The main quibble I have is with the screens which

*Concludes on Next Page*



## Mactype

From Previous Page

are displayed during a lesson. They show the words you are to type in double-spaced lines across the screen. When you type, the letters appear in the space between the lines and below the corresponding letters on the screen. This is all fine and dandy, except there is not enough space between the lines of text — the letters you type have all the descenders chopped off so

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*The letters you type have all the descenders chopped off so you occasionally think you have hit an incorrect key.*

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you occasionally think you have hit an incorrect key. Another problem arose with the screen blanker I use (Flex). When the screen was reactivated, the dialogue box or lesson window was empty! This had never happened to me before and was disconcerting, to say the least. I didn't take the time to test any other screen blanking programs, but you should be aware of this potential problem and perhaps disable your screen blanker before launching MacType.

Other than these minor glitches, though, MacType worked smoothly and was a pleasure to use. Its intelligent approach to teaching typing and emphasis on accuracy place it ahead of less sophisticated typing tutorials. For those who wish to use the Dvorak layout in other programs, such as one's favorite word processor, Palantir includes a Dvorak utility which configures your keyboard to Dvorak. MacType is copy protected (though the supplied Dvorak utility is not). It can be transferred to a hard disk and used with the original disk as a "key" in the floppy drive. Palantir also welcomes you "to share it with friends, family or co-workers" (the MacType disk will accommodate over 100 students) but asks that you not try to copy the program. Given the copy protection used, this message seems somewhat incongruous, but it's beyond what most software companies offer.

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*Bob Nelson is a computer consultant and teaches computer literacy to grade school through college students in Humboldt County on California's north coast.*



## Editor's Column

From Page 4

invention in the early 1930s through the end of the 1980s, has been mainly as a "grassroots" movement; individuals, rather than groups, have pioneered its use. With some notable exceptions, there aren't any major conversion projects in big companies in the United States. Many researchers, when trying to discover just how many people have switched to Dvorak from Qwerty, try to find large pockets of Dvorak users to interview. Mostly, they don't find these groups of users, so they wrongly conclude that the Dvorak is only used by a few people — "zealots" here and there. Obviously, I think that is wrong.

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*My off-the-cuff answer: about 260,000 people use the Dvorak keyboard.*

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Just about everyone I meet types at least a little bit. The most obvious group of typists is people who type on the job. The next-most-obvious is people who have computers. But I don't know *anyone* who doesn't have either a typewriter or a computer that they use at home, at work, or at school, at least once in a while. If you assume a round number like 260 million for the U.S. population, how many of them type (not how many *touch* type, but at least type a few characters once in a while)? Certainly not all of them; let's be conservative and say 50 percent.

That makes about 130 million people who use keyboards. If one percent use the Dvorak, that's nearly one and one-third million people! But even I don't think the number is that high. If I discount the people I meet because of my involvement in the Dvorak keyboard — leaving people I meet by chance, or in the course of my other interests or business pursuits — I do occasionally come across Dvorak typists. Being extremely conservative, I would say that about 1 in 250 people I meet use the Dvorak keyboard.

Can that number be applied universally? Probably not. Most of the people I deal with are professionals — college graduates. It is likely that college-educated people have more of a chance to hear about the Dvorak than, say, a typical high school-educated blue collar worker (though I certainly *have* met blue collar workers who have not only heard of, but use, the Dvorak!), and it also more probable that a college-educated person types, at least a little. So let's be quite conservative and halve the figure: perhaps one out of 500 people that I might meet at random use the Dvorak. *But even that conservative figure leaves us with 260,000 Dvorak typists! Is this a reasonable figure?*

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*Concludes on Page 10*



Her Secret Shame! Would **He** Find Out?  
A Best-selling Romance Author admits...

## I had a Deep, Dark Secret

by Georgina Gentry

For years, I had been hiding an embarrassing secret. Here I was, a best selling romance author of three novels with a contract for four more. I'd won three industry awards, and my *Cheyenne Captive* had been voted one of the Top Ten Historical Romances of 1987 by a poll of the readers of *Affaire de Coeur Magazine*. Before that, I had published countless short stories and magazine articles. Even earlier, I had been a Ford Foundation teacher.

And the humiliating secret? I couldn't type! Now, admitting that you can't type is like admitting that you don't know how to ride a bicycle — people stare at you, especially in my business. I went to great lengths to hide the fact. When it did come out when I was among other writers, I invariably got incredulous stares.

"You just got a new contract to write two long sagas a year and you can't type? How on Earth do you manage," they would ask.

"Not very well," I'd admit sheepishly, and change the subject. Not that I hadn't attempted to learn. In high school, I had tried and finally dropped typing class to keep from making a failing grade that would knock me out of the Honor Society. In college, my sister typed my themes. Later, I even enrolled in a vocational technology class. The Qwerty keyboard seemed impossible for my brain to grasp and my fingers to do.

I resorted to typing with two fingers while staring at the keyboard. Not good, but I could finally get a short story written.

Then, I was a novelist of 700-page sagas. The writing I could do; it was the typing that was pulling me under. I was not yet making enough money to hire a typist, and I wasn't sure I wanted to anyway. Almost all writers want to do their own typing. A top Doubleday novelist told me that she caught her typist 'improving' her work as she typed it. That alone scares most writers away from hiring typists, even if they finally make enough money to afford it.

I gradually got further and further behind with my two-fingered typing, and I came close to missing a deadline — something my Zebra publishers would never have understood. I had to face up to the fact that I could not continue forever without knowing how to type. After more than 20 years of two-fingered

pecking, I decided to learn how to do it right. But I still didn't like the idea of learning Qwerty.

Then I saw an article about the Dvorak keyboard in a writer's magazine, and I found out about *Dvorak Developments*. Randy Cassingham helped me convert

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*Now, admitting that you can't type is like admitting that you don't know how to ride a bicycle — people stare at you, especially in my business.*

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my computer and choose a tutorial program to learn the Dvorak.

The Dvorak layout, with all the most-used letters right under my fingers, made perfect sense to a writer who could never quite figure out the Qwerty keyboard, no matter how hard she tried.

At last, I can touch type! I switched mid-book: *Bandit's Embrace*, which I finished in March, was partially typed on Dvorak. My July Zebra paperback *Nevada Nights* was typed completely on my new Dvorak keyboard.

My speed is improving every day. And I can type all day without my hands cramping. Now, at writers meetings, I talk about the common-sense layout of the Dvorak instead of explaining how a successful writer can get along without knowing how to type.

I do keep a Qwerty keyboard for my husband, who says he's too old to learn a new system at his age. Maybe the answer lies with the next generation, the computer generation, with minds that are open to new and better ideas.

If this were the ending of one of my Western romances, the handsome cowboy and the gal would ride off together into the sunset. Forget the cowboy. I've got one of those. What I really need now is a Dvorak laptop that I can use out in the wilderness doing research. Just say the gal lived happily ever after with her Dvorak keyboard.

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*Georgina Gentry is the pseudonym of a successful romance novelist in the Midwest. Her sixth novel — written on a Dvorak keyboard, of course — is set around the Summit Springs Indian battle in Colorado. Titled Cheyenne Caress, it will be in bookstores in January.*

## Editor's Column

From Page 8

You bet it is. So my off-the-cuff answer: about 260,000 people use the Dvorak keyboard.

Does that mean 260,000 professional people use Dvorak every day? Obviously not. I do hear from professionals (doctors, lawyers, accountants, etc.), but I also frequently get letters from computer programmers, authors, students, people who learned Dvorak during the trials in the Tacoma city schools (where Dr. Dvorak did several studies), secretaries, insurance agents — the list goes on and on — who either already use the Dvorak or want to. Some of them are casual typists, or they don't type "but would use the Dvorak if I had to type".

The point is this: especially with the proliferation of computers, there doesn't have to be a giant pocket of users. People within an organization can switch on their own, often without the organization knowing about it. And they do. A typical example:

William Duquette is an engineer and programmer at NASA's Jet Propulsion Laboratory in Pasadena, California (JPL is in charge of robotic exploration; you can thank them for the spectacular success of Voyager 2 and many other spacecraft). Mr Duquette uses the Dvorak, both at work and at home. "I spend 6+ hours a day at a computer," he says. "I use the Dvorak constantly. It only took me two weeks to switch, and I have no desire to go back to Qwerty. Qwerty seems so unnatural now." Does that mean that NASA, or even JPL, has a program to convert its employees to Dvorak? No. Mr. Duquette converted his computers himself; JPL didn't do it for him. If you called JPL and asked them about their program to convert employees to Dvorak, they wouldn't know what you were talking about. How many people at JPL use the Dvorak? "I don't know," Mr Duquette says.

And why should he? Mr Duquette is concerned with his own comfort and productivity. There could be hundreds of Dvorak users around him, but it doesn't matter if there are hundreds or none: he wanted to switch. And he is getting the benefits of that switch.

There are dozens of products on the market today that can be used to convert a keyboard to Dvorak. PCKey. Smartkey. Prokey. Silver Reed's EZ 50 typewriter. Some Canon typewriters. The Apple IIc. The Commodore Amiga. And on and on. But while many of these products have the *capability* of converting a keyboard to Dvorak, how many of them are actually converted? How many people actually throw the switch of the Apple IIc? Switch their Silver Reed or Canon typewriters? Use the keyboard mapping por-

tions of the various keyboard macro programs? Who knows? It doesn't really matter. If *you* want to convert, you can, and without involving anyone else. That is how most people are using the Dvorak keyboard — on their own, not as a part of a large conversion project. That is why there are no large pockets of Dvorak users, and that is why many people think there are not very many Dvorak users. Rest assured, we're out here. So if *you* want to switch, just do it!

### Parting Words

I have had a good time editing *Dvorak Developments*, and will still enjoy meeting interesting people through the mail. Dvorak people are a good lot: Freelance Communications has never had a "bounced" check in all these years.

The best way to help the use of the Dvorak spread is to use it yourself, and to tell people about it. Thanks for your support, and keep spreading the word about the Dvorak!

## Keytime

From Page 1

said. "So I checked with the reference librarian, and she lent me her personal copy of Randy Cassingham's book *The Dvorak Keyboard*. It was a lifesaver — my final exams were the next day, and I *had* to have the information!"

When an attorney friend took one of Keytime's typing classes, she went into her regular speech about the typewriter and the Qwerty and Dvorak keyboards. He told her that if she was going to be teaching keyboarding, she should at least *offer* the option of learning on the Dvorak. "That was the push I needed," she said. "I knew we had to offer the option to students to learn Dvorak." Since the Keytime method can be taught using *any* keyboard layout, it was an easy thing to add the Dvorak keyboard to her training classes, she said. Keytime also offers instruction on the Dvorak one-hand keyboards.

Ms Bundy thinks people are confused about what the Dvorak keyboard really is. After studying Dr Dvorak's approach, Ms Bundy started to call the Dvorak the "Language-Based keyboard". "People really click in right away when I say 'Language-Based'. It really makes sense to them to have a keyboard based on the way language really is," she said. "We use the label 'Language-Based' because it carries a very important message to the person making keyboard decisions."

Keytime didn't stop with designing a new way to learn keyboarding. Like many who get interested in

*Concludes on Page 12*

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## List of Dvorak Products

Paid subscribers got a copy of the current "Dvorak Products" list with this issue. The list will be kept as up-to-date as possible. To get the latest copy, send \$1.00 to cover printing and postage to Freelance Communications, PO Box 1895, Upland CA 91785.

## Keytime

From Page 10

the Dvorak, Ms Bundy was dismayed at the lack of good alternatives to converting computers to the newer layout. After searching the market and not finding a good alternative (like me, she finds software to be a poor choice for a permanent solution) she decided to market her own keyboard. Keytime's convertible keyboard, which switches between Qwerty and Dvorak at any time at the flick of a switch, should be on the market by the time you read this. It will be available as the "102 Plus" for IBM-type computers (PCs, XTs, ATs, PS-2s, and clones) and as the "105 Plus" for the Apple Macintosh. The keyboards will also be able to switch to the Dvorak one-hand key layouts — both left- and right-handed — for users that need them.

"Because we drew attention to the Language-Based layout at a couple of trade shows last summer — one featuring Dvorak speed champ **Barbara Blackburn** burning along at about 200+ WPM — we had quite a few requests for Dvorak training," Ms Bundy says. "In all, so far we have trained about 100 people on the Language-Based keyboard. Now, with our convertible keyboard coming on the market, we expect to train a great many people on the Language-Based keyboard."

Due to the method used in Keytime training, Ms Bundy says that students on both Dvorak and Qwerty learn the letters on the keyboard in about an hour. "In the initial stages, the learning rate is about the same," she said. "But at a certain point, the Dvorak typists leave the Qwerty typists in the dust — they build workable speed much faster."

In addition to the switchable keyboards, Keytime has several other products in the works. The "Personal Keyboard" is a small keyboard with a display for practicing typing. It supports Dvorak, Qwerty, and Dvorak left- and right-hand layouts. "We are trying to keep the price in the textbook price range — hopefully, less than \$50," Ms Bundy said. "This inexpensive, portable training keyboard will make it easy for even young children to learn typing as a basic skill."

Several training videocassettes are being

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developed. The first, to be available this spring, will be used to support Keytime teachers in on-site corporate settings to teach keyboarding to groups of employees. Another, due out this fall, is individual use in the home. Another is planned to train teachers in the Keytime method.

Already on the market is "a unique practice workbook that makes all other typing manual obsolete," Ms Bundy says. The workbook is used after the students take the Keytime training to increase their skills.

It is fitting that Keytime is in Seattle. The Keytime offices are practically around the corner from the University of Washington, where the ergonomic keyboard was designed by **Dr August Dvorak** and his brother-in-law, **William Dealey**. Ms Bundy was able to search the Dvorak archives at the UOFW library, and has met with Mrs Dvorak at her home in Seattle.

"We have found a great deal of corporate interest in the Language-Based keyboard," Ms Bundy said. "Several large companies are testing the keyboard with pilot studies. We have been concentrating most of our efforts on developing the products to support our teaching program and make Language-Based typing completely functional. With the products we have in development, we're getting close to reaching that goal. When we do, we'll launch into full-scale marketing for our Language-Based program."

Linda Bundy has an amazing amount of energy, and a lot of ideas to support a large number of people who are in need of Dvorak-related — Language-Based — products. I've been consulting with her for nearly two years to support her efforts. I think we're about to see a new era begin in the life of the Dvorak keyboard.